

SUSQUEHANNA RIVER BASIN COMMISSION
1721 North Front Street • Harrisburg, PA 17102-2391 • www.srbc.net

FOR IMMEDIATE RELEASE
December 16, 2003

CONTACT: Susan Obleski
Susquehanna River Basin Commission
Office: (717) 238-0423, ext. 316

**Sources, Impacts and Treatment of Abandoned Mine
Drainage In the Upper Tioga River Watershed Identified
*SRBC and Partners Complete Growing Greener Project That Reveals Pollution
and Health Problems From Unreclaimed Mining Features***

Harrisburg, Pa. – The Susquehanna River Basin Commission (SRBC) today announced key report findings gathered from a 2-year study, where project partners assessed existing conditions and impairments of the Tioga River and select tributaries in Tioga County, northcentral Pennsylvania, and developed an abandoned mine drainage (AMD) remediation strategy. The study streams are located in the Upper Tioga Watershed, which is severely impacted by AMD. The AMD pollution impairs or eliminates aquatic life in a large part of the watershed and other mining-related problem areas could cause health problems for human. If left untreated, the mining-related impacts could cause significant environmental degradation, and health and safety problems for centuries.

During the assessment phase, the partners identified 36 AMD features and conducted comprehensive monitoring in the Upper Tioga River Watershed. After that assessment, ten separate treatment plans were developed to address the AMD pollution, followed by the design of treatment systems for each plan. In addition to AMD acidity, non-AMD acidity, from organic acids and atmospheric deposition, also impacts areas of the watershed. Separate treatments to address these sources of acidity were developed.

The findings and discussion of treatment options are contained in SRBC's new report, *Watershed Assessment and Remediation Strategy for Abandoned Mine Drainage in the Upper Tioga River Watershed*. This watershed AMD project was funded, in large, by a Growing Greener Grant from the Pennsylvania Department of Environmental Protection, along with in-kind donations from project partners, including Tioga River Watershed Reclamation Projects, Inc., Tioga County Concerned Citizens Committee, Hillside Rod and Gun Club, Mansfield University, Tioga County Conservation District, DEP, Pennsylvania Department of Conservation and Natural Resources, U.S. Army Corps of Engineers, Gannett Fleming, Inc. and Tarco Technologies.

SRBC Executive Director Paul Swartz said, "Local stakeholders have expressed a long-term goal of restoring the Tioga River to a natural ecological condition, with interim water quality and ecological improvements to the affected tributaries. This assessment and remediation planning project was a key step toward meeting the long-term goal for the Upper Tioga River Watershed."

-- more --

Among the many findings, the project partners determined that treatment efforts on two tributaries –Fall Brook and Johnson Creek – would yield the greatest benefit-per-cost ratio, and would be the best starting points for restoration efforts in the entire watershed. The two most effective technologies to be applied to AMD discharges directly would be active chemical and passive wetland treatment systems. Other alternatives include re-mining or land capping to limit infiltration on disturbed sites, adding alkaline to abandoned surface and underground mine works, or streambed sealing to prevent infiltration to mine pools. Indirect treatment, increasing the alkalinity of reaches upstream of the AMD sources, also is possible.

If fully implemented, the treatment activities would cost about \$10.2 million to construct and \$2.6 million per year to operate, for a total cost of \$42 million over the next fifteen years. This equates to about \$130,000 per stream mile per year for 21.5 miles of total stream improvements in the watershed. These fees include the costs of construction, operation and maintenance of selected treatment plans.

Swartz said, “While the goal of complete ecosystem restoration may take decades, the water quality in the river and its connecting tributaries would begin improving as the treatment systems are implemented. As such, the ecological health of the surrounding watershed and its inhabitants would benefit from added water recreational opportunities, and increased aesthetic value of the river itself.”

As acid levels in the water decrease, other benefits also will accrue, including reduced maintenance costs for bridges and other man-made structures, and increased supplies of potable drinking water.

The full technical report (Publication No. 230), including an extensive appendix file, is available on CD-ROM. The body of the report, without the appendix, is available on SRBC’s web site at <http://www.srbc.net/techreports.htm>, along with an eight-page companion summary report. Report CD-ROMs and hard copies are available through SRBC, by calling 717-238-0423 or e-mailing a request to srbc@srbc.net.

SRBC is the governing agency established by the federal government and the states of New York, Pennsylvania and Maryland to protect and wisely manage the water resources of the Susquehanna River Basin. The Susquehanna River starts in Cooperstown, N.Y., and flows 444 miles to Havre de Grace, Md., where the river meets the Chesapeake Bay.

###